Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for monitoring the effect of a therapeutic composition on cancer in a mammal, comprising:

(i) measuring a first PAK4 on ser-474 phosphorylation level in a first biopsy obtained from said mammal before administration of a therapeutic composition to said mammal; and

(ii) measuring a second PAK4 on ser-474 phosphorylation level in a subsequent biopsy obtained from said mammal after administration of the therapeutic composition to the mammal,

wherein a lower level of PAK4 phosphorylation on ser-474 in the subsequent biopsy compared to the first biopsy indicates that the therapeutic composition has an effect on cancer ~~decreases PAK4 phosphorylation on ser-474~~ in the mammal.

2. (Original) The method of claim 1, wherein the mammal is selected from the group consisting of a human, rat, mouse, pig, cow, goat, monkey, cat, and dog.

3. (Original) The method of claim 1, wherein the mammal is a human.

4.-5. (Canceled)

6. (Currently amended) The method of claim 1 [[5]], wherein the cancer is colon cancer.

7. (Original) The method of claim 1, wherein either or both of the biopsies are suspected of containing cells capable of anchorage-independent cell growth.

8. (Original) The method of claim 1, wherein neither the first nor the second biopsy is suspected of containing cells capable of anchorage-independent cell growth.

9. (Original) The method of claim 1, wherein either biopsy is a tissue biopsy.

10. (Original) The method of claim 9, wherein the tissue is buccal mucosa tissue, skin, hair follicles, tumor tissue, or bone marrow.

11. (Original) The method of claim 1, wherein either biopsy is a biological fluid.

12. (Original) The method of claim 11, wherein a biopsy is selected from synovial fluid, whole fresh blood, peripheral blood mononuclear cells, frozen whole blood, fresh plasma, frozen plasma, urine, and saliva.

13. (Original) The method of claim 1, wherein the therapeutic composition effects a change in one or more of physiological, biochemical, genetic, cellular, or immunological traits of the mammal.

14. (Original) The method of claim 1, wherein the first and subsequent biopsies are taken from a tumor in the mammal.

15.-17. (Canceled)

18. (Previously presented) The method of claim 1, wherein a first level of phosphorylated PAK4 in the first biopsy obtained from the mammal is measured at least 1 day before administering the therapeutic composition to said mammal.

19. (Previously presented) The method of claim 1, wherein a first level of phosphorylated PAK4 in the first biopsy obtained from the mammal is measured at least 5 days before administering the therapeutic composition to said mammal.

20. (Previously presented) The method of claim 1, wherein a first level of phosphorylated PAK4 in the first biopsy obtained from the mammal is measured at least 14 days before administering the therapeutic composition to said mammal.

21. (Original) The method of claim 1, wherein administration of the therapeutic composition comprises at least one dose of the therapeutic composition.

22. (Original) The method of claim 1, wherein administration of the therapeutic composition comprises a regime of multiple doses of the therapeutic composition.

23. (Original) The method of claim 22, wherein the doses are administered during a period of 4 hours up to about 100 days.

24. (Original) The method of claim 1, wherein the subsequent biopsy is obtained from the mammal after administration of the final dose of said therapeutic composition.

25. (Original) The method of claim 22, wherein multiple biopsies are obtained from the mammal during the regime.

26.-62. (Canceled)